M. Briggs,

Fire-Proof Safe.

No. 46,634. Patented Mar. 7, 1865.

Fig. 2.

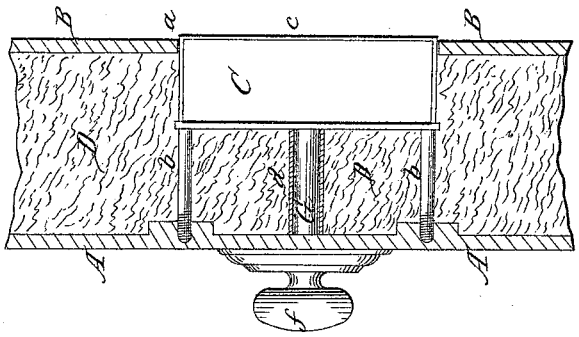


Fig. 3.

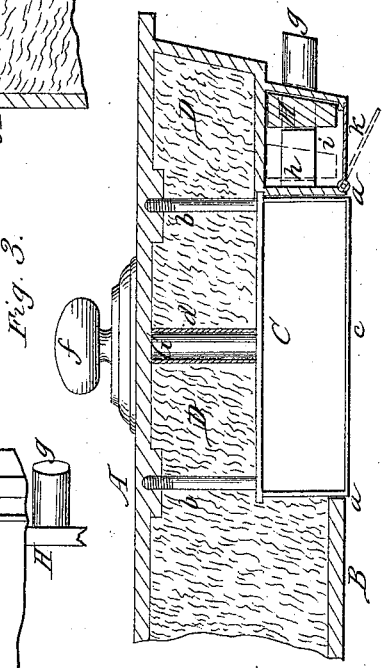
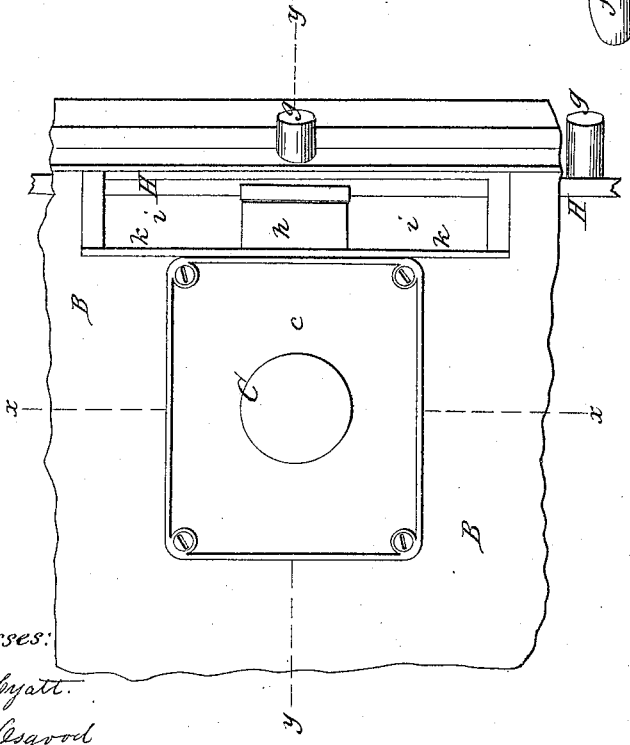


Fig. 1.



Witnesses:
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UNITED STATES PATENT OFFICE.

MARTIN BRIGGS, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN SAFES.

Specification forming part of Letters Patent No. **46,634**, dated March 7, 1865.

To all whom it may concern:

Be it known that I, MARTIN BRIGGS, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Securing Locks to the Doors of Fire-Proof Safes, &c.; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is an elevation of a portion of the inside of the door of a bank-safe, showing my method of applying the lock; Fig. 2, a vertical transverse section in the plane of line *x x*, Fig. 1, but showing the lock in elevation; Fig. 3, a horizontal transverse section in the plane of *y y*, Fig. 1, but showing the lock in plan.

Like letters of reference indicate corresponding parts in all the figures.

In all fire-proof safes with which I am acquainted the lock for securing the same is situated next to the back or outside plate of the casing of the door, and the fire-proof packing or filling surrounds it on the inside.

My invention consists, essentially, in reversing the arrangement—placing the lock on the inside and filling the packing in on the outside of the lock and between it and the outer plate. By this arrangement several important advantages are attained, which will hereinafter be mentioned.

In the drawings a section of the edge of a fire-proof safe door is shown with the lock secured on the inside. A is the outer plate of the door; B, the inner plate; C, the lock, of any ordinary or desired construction, and D the packing filled between the plates and directly around the case of the lock. I do not allow the lock to be covered on the inside by the plate B, but an opening, *a*, is made in the latter of sufficient size to receive the lock; and the back *c* of the lock, which of course is made removable, can be taken off to expose the interior mechanism, whenever the door of the safe is opened for the purpose. The lock may be held in place by any convenient means, that represented in the drawings being bolts *b b*, extending from the same through the packing and screwing into the outer plate. The lock is operated from the outside by any device that will accomplish the purpose, that represented being a turning shaft, G, passing through a tube, *d*, in the packing, and having a knob, *f*, on the outside.

Ordinary fire-proof safe doors have a bar, H, extending from bottom to top, to which, at suitable intervals apart, are secured bolts *g g*, which are made to protrude outward through the edge of the door and strike into sockets in the safe, for the purpose of securing the door when shut. When the lock-bolt *h* is thrown out, it strikes against the bar H, as shown in black lines, and prevents the bolts *g g* from retracting; but when the lock-bolt *h* is thrown back it allows the bar H and its bolts *g g* to retract, as indicated in red lines, so that the door can be opened. In order to reach the bar H, where the lock-bolt operates, I make a chamber, *i*, of suitable size, through which the bar passes, and in which the lock bolt works, and cover the chamber either by a door, *k*, or a removable plate or some equivalent device.

By the construction and arrangement before described I secure several important advantages, as follows:

First. In placing the lock on the inside, with its back plate projecting through the inner plate, B, of the door, I am enabled to reach the inner mechanism of the lock to adjust, repair, or replace the same at any time. In the ordinary arrangement, with the lock at the outside, it is entirely insulated, being covered on one side by the outer plate, A, and on the other by the packing D. Thus, if from any slight accident, even the disarrangement of a spring, the lock gets out of order it cannot be reached without removing one of the plates and tearing out the packing—a labor of great difficulty and involving much time and expense.

Second. By being situated on the inside, instead of the outside, the lock is better protected from fire, as it is not only a greater distance from exposure, but has the packing D between it and the outer plate, A. In this manner the lock is so protected that it is operative after being exposed to a fire, while if situated on the outside it will become so affected by direct contact with the heat as to become inoperative, necessitating the forcible opening of the safe.

Third. By being situated on the inside the lock is also more secure from the operation of burglars, as the distance is an effectual guard against the insertion of either tools or gunpowder, and if even the latter could be used

the explosion would have a tendency to force the lock inward within the safe, rather than outward, thus leaving the outer plate of the door unbroken, and effectually preventing the opening of the safe, as the bolts of the door could not be thrown back easily.

Fourth. The bolts *g g* of the safe-door are situated in the inner flange of the door instead of the outer, as usual, and therefore the same are not only farther removed from danger from the outside, but the bar H, to which they are secured, is readily accessible at any and all times through the chamber *i*. Thus, even if gunpowder could be introduced and the lock blown off inside, these bolts could not be easily reached, as the outer plate, A, would be unbroken.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The construction, essentially as herein shown, the lock C being secured within the inner side or back of the door, with its back resting through in such a manner as to be readily opened and used, in combination with the plates A B and packing D, so that the packing will surround the lock on the outside and ends, to protect it, substantially as set forth.

2. In combination with lock C, plates A B, and packing D, as above described, arranging the bar H and its bolts *g g* in the inner flange of the door, and rendering them accessible by the chamber *i*, substantially as herein set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

MARTIN BRIGGS.

Witnesses:
R. F. OSGOOD,
JAY HYATT.